VNSM
API Documentation for NOSTIXX ++ APP

Created By

For

Changelog

Date	Revision	Modified By	Summary
19/05/2022	1.0	Srikanth	
09/06/2022	1.1	Srikanth	Added API's for update Flag
05/01/2023	1.2	Lokesh	Review the API
25/04/2023	1.3	Shreekanth	Added Api's for store installation failed log file

15/09/2023	1.4	Lokesh	Added the pro-pack and analytics module

API Endpoint	**Uses**
whoami	API access for Valid users
app verify	To verify the app version and whitelisted device check
App get OTP	Authenticate the dealer login (service centre)
App validate OTP	Validate the OTP received while Dealer login
VIN Get OTP	Validate VIN
VIN Validate OTP	Download all hex files and XML related to VIN
VIN Update Hexfile Install Status	Update Installation and Failure reports
IUPMR	To store IUPMR log
VIN Hexfile Installation Log Upload	To store installation log file in case of installation failed.
Upload Analytics	To store the Analytics
Pro Pack Status Update	Update the propack enabled status.

Introduction

This document provides specifications of the API for the sending and receiving of data via API. This guide is intended for developers and clients alike who plan to integrate their systems with our services.

Base URL

Base URL will be defined as the common API URL to be specified in every API call. All APIs shall contain this base URL.

BASE URL: https://HOSTNAME/api/

Required Environment

In order to use API, one needs to have a system that has internet connectivity. This may be direct internet connectivity or via a firewall or proxy server.

SSL Enabled API Triggering

These APIs have been designed to allow the client to access them using an SSL Enabled connection for added security. To trigger API on an SSL enabled connection, one must enter the URL beginning with https:// instead of http://.

Our API supports only HTTPS. Using HTTPS to encrypt all requests through SSL is recommended.

Output Restrictions

If the network is down, our Gateway Servers will retry up to six hours before giving up.

Input Restrictions

This is one of the simpler server-based methods of communication. It can be used either in the form of an HTTP POST or HTTP GET. We recommend POST for larger data transfer and data security. All calls to the API must be URL-encoded. The parameter variables are case sensitive. Also, recommended using the POST method for error-free submission due to URL limitations.

API Requests

WHOAMI

HTTP API is used to get **whoami** information

Method	GET
URL	https://HOSTNAME/api/whoami

API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value

subscription_id	subscription key to access the whoami service	BALVNSMAPP

Example JSON Request

```
{
"subscription_id": "BALVNSMAPP"
}
```

Example Success Response

When the API call succeeds, you will receive the below parameters in a JSON response object.

```
{
"error": 0,
"message": "Success",
"token": "c397159b3b58097f5dd8b1cc026b9878976ed3d77",
"expiry": "2022-08-30 12:25:21"
}
```

Example Failure Response-1

If any of the mandatory parameters are missing.

```
{
"error": -1,
   "message": "Validation Failed!",
   "data": {
      "subscription_id": ["The subscription id field is required." ]
}
}
```

Example Failure Response-2

Invalid subscription_id

```
{
"error": -2,
   "message": "Invalid subscription_id",
   "token": null
```

```
}
```

APP VERIFY

Verify Current App version and Device Serial Number (every time the app opens)

HTTP API to Verify **Current App version and Device Serial Number** information

Method	POST
URL	https://HOSTNAME/api/v2/verify

HTTP Headers - Authorization: Bearer { token from whoami API}
API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value
appversion	current mobile app version installed on the device	1.1
serial_number	Serial number of the android device	GJGD31131

Example JSON Request

```
{
"serial_number" :"GJGD31131",
"appversion " :"1.1"
```

```
}
```

Example Success Response

When the API call succeeds, you will receive below parameters in a JSON response object.

```
{
 "error": 0,
 "message": "Success"
}
```

Example Failure Response-1

If any of the mandatory parameters are missing.

```
{
 "error": -1,
 "message": "Validation Failed!",
 "data": {
 "serial_number": ["The serial number field is required."],
 "appversion": ["The app version field is required."]
 }
 }
```

Example Failure Response-2

If the serial number is not found in the VNSM database.

```
{
 "error": -2,
 "message": "Device not found"
}
```

Example Failure Response-3

If the serial number is found and the device is in INACTIVE state.

```
{
 "error": -3,
 "message": "Device is deactivated"
}
```

Example Failure Response- 4

If the app version did not match the version on the server

```
{
 "error": -4,
 "message": "app version did not match "
}
```


APP GET OTP

This API is used to get OTP to login into the mobile APP

Method	GET
URL	https://HOSTNAME/api/v2/login-get-otp

HTTP Headers - Authorization: Bearer { token from whoami API}
API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value
dealer code (Mandatory)	Dealer code of the Dealership	67351
serial_number (Mandatory)	The serial number for the device which is pre-registered in the FMS portal	GJGD31131

Example JSON Request


```
{
    "dealer_code": "67351",
    "serial_number": "GJGD31131",
```

Example Success Response

When the API call succeeds, you will receive below parameters in a JSON response object.

```
{
 "error": 0,
 "message": "Success"
}
```

Example Failure Response-1

If any of the mandatory parameters are missing.

```
{
 "error": -1,
  "message": "Validation Failed!",
  "data": {
     "dealer_code": [ "The dealer code field is required." ],
     "serial_number": ["The serial number field is required."]
  }
  }
```

Example Failure Response-2

Invalid dealer code

```
{
  "error": -2,
  "message": "Device or dealer not found!"
}
```

APP VALIDATE OTP

This API is used to validate the login OTP

Method	POST
URL	https://HOSTNAME/api/v2/validate-login-otp

HTTP Headers - Authorization: Bearer { token from whoami API}
API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value
OTP (Mandatory)	OTP number that is sent from the get OTP API	67351
serial_number (Mandatory)	The serial number for the device which is pre-registered in the FMS portal	GJGD31131

Example JSON Request

```
{
    "otp": "67351",
   "serial_number": "GJGD31131"

}
```

Example Success Response

1. If OTP is valid and Serial Number is found in VNSM database

```
{
  "error": 0,
  "message": "Success",
  "token": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSUzI1NiJ9eyJhdWQi”
 }
```

When the API call fails, you will receive the below parameters in a JSON response object.

Example Failure Response-1

If any of the mandatory parameters are missing.

```
{
  "error": -1,
  "message": "Validation Failed!",
  "data": {
```

```
    "serial_number": [ "The serial number field is required." ],
    "otp": [  "The otp field is required."  ]
}
}
```


Example Failure Response-2

Invalid OTP:


```
{
 "error": -2,
 "message": "Invalid OTP "
}
```


VIN GET OTP (FIRST TIME OR RE-SEND)

HTTP API is used to get OTP information

Method	GET
URL	https://<hostname>/api/v2/vin-get-otp

HTTP Headers - Authorization: Bearer { token from login api }

API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value
vin (Mandatory)	The VIN number for the vehicles which is preregistered in the FMS portal	17 digits alphanumeric number

serial_number (Mandatory)	serial number of the device	GJGD31131

Example JSON Request

```
{
"serial_number" :"GJGD31131",
"vin " :"MD313131T8743DFH2"
}
```

Example Success Response

When the API call succeeds, you will receive below parameters in a JSON response object.

```
{
  "error": 0,
  "message": "Success"
}
```

Example Failure Response-1

If any of the mandatory parameters are missing.

```
{
"error": -1,
"message": "Validation Failed!",
"data": {
"serial_number": ["The serial number field is required."],
"vin": ["The vin field is required."]
}
}
```

Example Failure Response-2

If the VIN number is not in required format.

```
{
  "error": -1,
"message": "Validation Failed!",
"data": {
  "vin": ["The vin must be at least 17 characters."]
}
}
```


Example Failure Response-3

Under following conditions:

1. Serial number is valid
2. VIN format is valid
3. VIN number not found in VNSM database.


```
{
  "error": -3,
  "message": "Invalid VIN number"
}
```


VIN VALIDATE OTP

This API is used to send the OTP data and VIN number for validation

Method	POST
URL	https://HOSTNAME/api/v2/vin-validate-otp

HTTP Headers - Authorization: Bearer { token from login API}
API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value
vin (Mandatory)	The VIN number of the vehicle for which the files need to be downloaded.	MD2JPJYD1KC23 7671

otp (Mandatory)	OTP number that is sent from the get OTP API	6735
serial_number	serial number of the device	GDXXXXXX

Example JSON Request

```
{
    "otp": "6735",
    "vin": "MD2JPJYD1KC237671",
    “serial_number” : “GDXXXXXXX”
 }
```

Example Success Response - 1

1. If OTP is valid and VIN is found in VNSM database


```
{
  "error": 0,
  "message": "Success",
  "data": {
    "propack_pin": "400948",
    "controllers": [
      {
        "hexfiles": [
          {
            "vendor_code": null,
            "hex_file": "DAKT9582V001V11",
            "software_version": null,
            "software_revision": 4,
            "app_hex":
"https://fmsdev.bajajauto.com/api/download/DAKT9582V001V11?file_token=wsx5JNhaSvjHli3qlkys7z1LZDmUDNHVBxBqAi0bKWsLAx1bG5KH5YmPWzU468Oi&expiry=1659415117"
          }
        ],
        "name": "TFT",
        "part_no": "JG402415",
        "calibration_version": "DAKT9582V001V0700",
        "uds_request_id": "780",
        "uds_response_id": "781",
        "balnet_base_id": null,
        "balnet_checkbyte": null,
        "balnet_program_constat": null,
        "uds_ext_session": null,
        "calibration_hexfile":
"https://fmsdev.bajajauto.com/api/file/ecufile/cfile/21?file_token=5cjhN86RGSlB6DYCgv9UJIWLuwxRU7oj5rxGj4zinH58VH504tsakPYMC5yhxNSOXUxXM6exgL5BkYnUeAsn9tKh15ybOJFopE8esNWvc1ok1Hhh4ZZkMCL6bF9UUsAo&expiry=1659415117",
```

```
            "uds_did_list":
"https://fmsdev.bajajauto.com/api/file/ecufile/didlist/21?file_token=5cjhN86RGSlB6DYCgv9UJIWLuwxRU7
oj5rxGj4zinH58VH504tsakPYMC5yhxNSOXUxXM6exgL5BkYnUeAsn9tKh15ybOJFopE8esNWvc1ok1Hhh4Z
ZkMCL6bF9UUsAo&expiry=1659415117",
            "uds_fault_list":
"https://fmsdev.bajajauto.com/api/file/ecufile/faultlist/21?file_token=5cjhN86RGSlB6DYCgv9UJIWLuwxR
U7oj5rxGj4zinH58VH504tsakPYMC5yhxNSOXUxXM6exgL5BkYnUeAsn9tKh15ybOJFopE8esNWvc1ok1Hhh
4ZZkMCL6bF9UUsAo&expiry=1659415117"
        },
        {
            "hexfiles": [
                {
                    "vendor_code": null,
                    "hex_file": "KM943IN2055503",
                    "software_version": null,
                    "software_revision": 2,
                    "app_hex":
"https://fmsdev.bajajauto.com/api/download/KM943IN2055503?file_token=SDiUfgwTKzRz8n5Zz3w8WxtK
q8o8yrt5gEZw9QCMZSLqvHkM7qPKkQy6cPJko6lr&expiry=1659415117"
                }
            ],
            "name": "EMS",
            "part_no": "JG351432",
            "calibration_version": "KM943IN205550200",
            "uds_request_id": "7E0",
            "uds_response_id": "7E8",
            "balnet_base_id": null,
            "balnet_checkbyte": null,
            "balnet_program_constat": null,
            "uds_ext_session": null,
            "calibration_hexfile":
"https://fmsdev.bajajauto.com/api/file/ecufile/cfile/102?file_token=rUUqY9B9Ywhq94De3CNR6lv2arCktX
WxWW5cuLF4caQMTstRGH5JsC9ye5CctH2BHg8pg8pTvOWXV2vK6Vb4gUC6JukSuuUzJ0QGcaLwiA6S1b
YEMV07kesmYxKjAvN6&expiry=1659415118",
            "uds_did_list":
"https://fmsdev.bajajauto.com/api/file/ecufile/didlist/102?file_token=rUUqY9B9Ywhq94De3CNR6lv2arCkt
XWxWW5cuLF4caQMTstRGH5JsC9ye5CctH2BHg8pg8pTvOWXV2vK6Vb4gUC6JukSuuUzJ0QGcaLwiA6S1
bYEMV07kesmYxKjAvN6&expiry=1659415118",
            "uds_fault_list":
"https://fmsdev.bajajauto.com/api/file/ecufile/faultlist/102?file_token=rUUqY9B9Ywhq94De3CNR6lv2arCk
tXWxWW5cuLF4caQMTstRGH5JsC9ye5CctH2BHg8pg8pTvOWXV2vK6Vb4gUC6JukSuuUzJ0QGcaLwiA6S1
bYEMV07kesmYxKjAvN6&expiry=1659415118"
        }
    ]
  }
}
```


Note : The above hex file download links will only be valid for 5 minutes

Example Success Response - 2

Following will be the response when below conditions are met:

1. OTP is valid
2. VIN number is matching with OTP and VIN number not found in VNSM database

```
{
     "error": 1,
    "message": "Success"
 }
```


Example Failure Response

When the API call fails, you will receive the below parameters in a JSON response object.

Example Failure Response-1

If any of the mandatory parameters are missing.


```
{
   "error": -2,
   "message": "Validation Failed!",
   "data": {
       "serial_number": ["The serial number field is required."],
      "otp": ["The otp field is required."],
      "vin": ["The vin field is required."]
   }
}
```


Example Failure Response-2

Invalid OTP:


```
{
   "error": -3,
   "message": "Invalid OTP or serial number!",
   "data": "null"
}
```


VIN Update Hexfile Install Status

Function of this API to store the HEX File downloaded against each VIN with date and time stamp.

Method	POST

URL	https://<hostname>/api/v2/vin/hexfile/install

HTTP Headers - Authorization: Bearer { token from login API}
API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value
vin_number (Mandatory)	Vehicles VIN number	17 digits VarChar number
hexfile_name (Mandatory)	Name of the HEX	Example: PC351416013244
status (Mandatory)	status of attempt	Not Attempted – 0 Flashing successful – 1 Flashing failed - 2
log_file	incase of failure	file
comments	Reason	Any string

Example JSON request

```
{
   "vin_number":"1J8HR58205C597732",
   "hexfiles":[
          {
           "hexfile_name" : "AZ351414020602",
        "status" : "0",
 "logfile" : "file content"
        "comments" : "Any comments"

          },
```

```
            {
          "hexfile_name" : "AZ351414020602HACK",
          "status" : "0",
    "logfile" : "file content"
            "comments" : "Any comments"
            }
            ]
}
```

Success response (code: 200)

```
        {
         "error": 0,
         "message": "Success"
        }
```

Example Validation response

If any of the mandatory parameters are missing.

```
{
"error": -1,
"message": "Validation Failed!",
"data": {
          "vin_number": ["The vin number field is
 required."],
       "hexfile_name": ["The hexfile names field is
 required."],
 "status": ["The serial number field is required."]
}
}
```

Example Failure Response

Invalid VIN:

```
{
 "error": -2,
 "message": "Invalid VIN number " }
```

If status value is other than 0,1,and 2

```
{
 "error": -4,
 "message": " Invalid status" }
```

If hexfile is not found

```
{
 "error": -5,
 "message": " Invalid hexfile" }
```

In case of other exceptions

```
{
 "error": -6,
 "message": "Failed"
}
```

IUPMR

This API request is used for store IUPMR log

Method	POST
URL	https://<hostname>/api/v2/vin/iupr/create

Example JSON request

```
{
   "vin_no": "VBKJGJ408LC200514",
   "logs": [
      {
         "DID_code": "FE00",
         "parameter_name": "obd monitoring GD",
         "ratio": "03"
      },
      {
         "DID_code": "FE10",
         "parameter_name": "xyz monitoring GD",
         "ratio": "03"
      }
   ]
}

{
   "vin_no": "VBKJGJ408LC200514",
   "logs": [
      {
         "DID_code": "FE00",
         "parameter_name": "obd monitoring GD",
         "ratio": "03"
      },
      {
         "DID_code": "FE10",
         "parameter_name": "xyz monitoring GD",
         "ratio": "03"
      }
   ]
}
```


Success response (code: 200)


```
{
   "error": 0,
   "message": "Success"
}
```


Example Failure Response

Invalid VIN:


```
{
   "error": -2,
   "message": "Vin Not Found"
}
```

Example Validation response

If any of the mandatory parameters are missing.


```
{
   "error": -1,
   "message": "Validation Failed!",
   "data": {
      "vin_no": [
         "The vin no field is required."
      ],
      "logs": [
         "The logs field is required."
      ]
   }
}
```


VIN Hexfile Installation Log Upload

This API request is used for store installation log file in case of installation failed.

Method	POST
URL	https://<hostname>/api/v2/vin/hexfile/log/install

HTTP Headers - Authorization: Bearer { token from login API}

API Parameter Specifications

The API parameter specifications are described in the following sections.

Request body (In form data)

Parameter	Description	Expected Value
Serial Number (Mandatory)	serial number of the device	GDXXXXXX

vin_number (Mandatory)	Vehicles VIN number	17 digits VarChar number
log_file	incase of failure	file
hexfile_name (Mandatory)	Name of the HEX	Example: PC351416013244

Success response (code: 200)

Example Success Response

```
{
   "error": 0,
   "message": "Success"
}
```

Example Failure Response
Invalid VIN:

```
{
   "error": -1,
   "message": "Validation Failed!",
   "data": {
      "vin_number": [
         "The vin number must be at least 17 characters."
      ]
   }
}
```

Invalid serial number:

```
{
   "error": -3,
   "message": "Invalid serial number"
}
```

Invalid hexfile:

```
{
   "error": -5,
   "message": "Invalid hexfile"
}
```

Validation failed:


```
{
   "error": -1,
   "message": "Validation Failed!",
   "data": {
      "vin_number": [
         "The vin number field is required."
      ],
      "serial_number": [
         "The serial number field is required."
      ],
      "hexfile_name": [
         "The hexfile name field is required."
      ],
      "logfile": [
         "The logfile field is required."
      ]
   }
}
```


UPLOAD ANALYTICS

This API is used to validate the login OTP

Method	POST Form Data
URL	https://<HOSTNAME>/api/v2/analytics/upload-analytics

HTTP Headers - Authorization: Bearer { token from login API}
API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value

vin_number (Mandatory)	The VIN number of the vehicle	XXXXXXXX
analyticsfile (Mandatory)	File Upload (Format zip,txt,log)	File

Example Success Response


```
{
   "error": 0,
   "message": "Success"
}
```


When the API call fails, you will receive the below parameters in a JSON response object.

Example Failure Response-1

If any of the mandatory parameters are missing.


```
{
   "error": -1,
   "message": "Validation Failed!",
   "data": {
      "vin_number": [
         "The vin number field is required."
      ],
      "analyticsfile": [
         "The analyticsfile field is required."
      ]
   }
}
```


Pro Pack Status Update

This API is used to validate the login OTP

Method	POST
URL	https://<HOSTNAME>//api/v2/pro-pack-status-update

HTTP Headers - Authorization: Bearer { token from login API}
API Parameter Specifications

The API parameter specifications are described in the following sections.

Parameter	Description	Expected Value
vin (Mandatory)	The VIN number of the vehicle	XXXXXXXX
status (Mandatory)	Enabled / Disabled	

Example Success Response


```
{
   "error": 0,
   "message": "Pro-Pack status updated successfully!"
}
```


When the API call fails, you will receive the below parameters in a JSON response object.

Example Failure Response-1

If any of the mandatory parameters are missing.


```
{
   "error": -1,
   "message": "Validation Failed!",
   "data": {
      "vin": [
         "The vin field is required."
      ],
      "status": [
         "The status field is required."
      ]
   }
}
```


Example Failure Response-1

If vin not found in system.


```
{
   "error": -3,
   "message": "Vin Number Not Found!"
}
```